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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,362	12/30/2003	Anuj B. Gosalia	MSFT-2812/304049.2	7794

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EXAMINER
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TUNG, KEE M

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/748,362

Applicant(s)

GOSALIA ET AL.

Examiner

Kee M Tung

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19,43,48 and 59 is/are rejected.
- 7) ☒ Claim(s) 20-42,44-47,49-58 and 60-69 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/15/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 19, 43, 48 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Sturges (5,930,827).

Sturges teaches a method for video memory management in a computer environment (Figs. 2 and 8) having a main processing unit (91) for executing an operating system (36) and an application (32), a system memory (92), and a graphics processing unit (94) having local video memory (95), comprising managing the physical memory of the local video memory and at least of portion of the physical memory of the system memory (col. 2, lines 23-29 and col. 12, lines 56-58); and allocating virtual memory and maintaining mapping between the allocated virtual memory and the physical memory of the local video memory and the physical memory of the system memory (col. 2, lines 23-29; col. 12, lines 56-58; and col. 14, lines 7-67). Therefore, at least claim 48 is anticipated by Sturges.

Claim 59 is similar in scope to claim 48, and additionally requires the graphics processing unit having an aperture that maps between a portion of system memory and the graphics processing unit which is inherently in view of the AGP interface 99 (Fig. 8 and AGP Specification, col. 2, lines 1-29) because the AGP interface provides direct

(point-to-point) connection between the graphics processor and system memory (portion for storing graphics data, such as, texture mapping data) and furthermore, there is a graphics address remapping table (GART) for mapping non-contiguous system memory as contiguous to the graphics processor. Therefore, at least claim 59 is anticipated by Sturges.

Claim 19 is similar in scope to claim 59, and additionally requires managing the physical memory of the local video memory and at least of portion of the physical memory of the system memory (DMM 40).

As per claim 43, Sturges further teaches allocating physical memory in a first one of the plurality of the plurality of memories (92); storing a set of graphics data in the first one of the plurality of the plurality of memories (portion for storing the graphics data, such as, texture data); allocating an virtual address range in at least one of the plurality of memories (DMM 40); mapping the virtual address range to the first one of the plurality of memories storing the graphics data (abstract, last sentence); storing the graphics data in a second one of the plurality of memories (95); and remapping the virtual address range to map to the second one of the plurality of memories (col. 2, lines 23-29; col. 12, lines 56-58; and col. 14, lines 7-67 and also see claim 59 for discussion of GART)

***Allowable Subject Matter***

3. Claims 1-18 are allowed.


4. Claims 20-42, 44-47, 49-58 and 60-69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kee M Tung whose telephone number is 703-305-9660. The examiner can normally be reached on Tuesday - Friday from 5:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kee M Tung  
Primary Examiner  
Art Unit 2676